

Department of Civil and Environmental Engineering, University of California, Irvine  
Position: Postdoctoral Scholar with Professor Kristen Davis  
Salary Range: \$ \$54,540 – 58,608 \* Based on qualifications and experience  
Start Date: Spring 2022  
Application Deadline: Open until filled

The Coastal Dynamics Laboratory at the University of California, Irvine invites applications for a postdoctoral researcher in coastal physical oceanography as part of an Office of Naval Research (ONR) funded study of the dynamics of refraction and reflection of nonlinear internal waves (NLIWs). The postdoc will use numerical modeling along with existing observational data to examine the dynamics of NLIWs interactions with steep topography. The successful candidate will ideally have a working knowledge of physical oceanography (specifically internal wave dynamics) and ocean modeling, although candidates with similar skills will be considered.

#### **DUTIES AND RESPONSIBILITIES**

- Conduct a series of idealized and realistic numerical simulations to examine NLIW refraction, reflection and generation using the [SUNTANS](http://suntans.stanford.edu/) (<http://suntans.stanford.edu/>) model;
- Use existing observations along with model output to contribute to an understanding of NLIW dynamics;
- Explore the effects of forcing mechanisms such as internal tides and rotation, as well as effects from nearshore NLIW such as residual currents, upwelling and mixing;
- Publish research in peer-reviewed journals and present results at national and international conferences.
- Mentor graduate and undergraduate students in the Coastal Dynamics Laboratory.

#### **MINIMUM QUALIFICATIONS**

- Doctoral degree in Oceanography, Fluid Mechanics, Geophysical Fluid Dynamics, or a closely related field;
- Experience in numerical ocean model application, validation and analysis;
- Ability to collaborate effectively in a team environment;
- Excellent written and oral communication skills;
- Publications related to the minimum qualifications;
- Ability to pursue research independently.

The postdoc will work directly with Dr. Kristen Davis (<http://davis.eng.uci.edu/>) at the Department of Civil and Environmental Engineering, UC Irvine and will also collaborate with co-investigators at UC San Diego and Stanford University. Additionally, there will be opportunities to mentor graduate and undergraduate students and for travel to Taiwan.

Initial appointment will be for 12 months and will be renewable for up to one year, subject to performance and availability of funding. Salary will commensurate with qualifications and experience.

Applicants should submit a cover letter with a brief description of present and future research interests, curriculum vitae, publications, and contact information for three references. Apply by submitting your application to our online RECRUIT system at:  
<https://recruit.ap.uci.edu/JPF07359>

Screening of applicants will begin immediately and will continue until the position is filled.

*"The University of California, Irvine is an Equal Opportunity/Affirmative Action Employer advancing inclusive excellence. All qualified applicants will receive consideration for employment without regard to race, color, religion, sex, sexual orientation, gender identity, national origin, disability, age, protected veteran status, or other protected categories covered by the UC nondiscrimination policy."*